

Serial No. 10/014,509  
Docket No. 383684/00

2

**AMENDMENTS TO THE CLAIMS:**

1-3. (Canceled)

4. (Currently Amended) A liquid crystal display device, comprising:  
a first substrate on which a plurality of pixel electrodes are formed;  
a second substrate on which an opposing electrode is formed;  
a liquid crystal layer sandwiched between said first and second substrates, said second substrate further having thereon a plurality of protrusions, each of said protrusions being positioned at a substantially central portion of a corresponding one of said pixel electrodes;  
and  
~~an alignment at least one interposing~~ layer formed between said plurality of protrusions and said ~~first~~ second substrate,  
wherein said plurality of protrusions comprises a rod-shaped spacer extending between said first and second substrates.

5. (Canceled)

6. (Canceled)

7. (Previously presented) A liquid crystal display device, comprising:  
a first substrate on which a plurality of pixel electrodes are formed;  
a second substrate on which an opposing electrode is formed; and  
a liquid crystal layer sandwiched between said first and second substrates, said second substrate further having thereon a plurality of protrusions, each of said protrusions being positioned at a substantially central portion of a corresponding one of said pixel electrodes,  
wherein said protrusions comprise an isotropic material and a black material.

8. (Previously presented) A liquid crystal display device, comprising:  
a first substrate on which a plurality of pixel electrodes are formed;  
a second substrate on which an opposing electrode is formed;

Serial No. 10/014,509  
Docket No. 383684/00

3

a liquid crystal layer sandwiched between said first and second substrates, said second substrate further having thereon a plurality of protrusions, each of said protrusions being positioned at a substantially central portion of a corresponding one of said pixel electrodes; and

a light-shielding layer formed on said protrusions, to inhibit a leakage of light through said liquid crystal layer.

9-10. (Canceled)

11. (Previously presented) A liquid crystal display device, comprising:  
a first substrate on which a plurality of pixel electrodes are formed;  
a second substrate on which an opposing electrode is formed; and  
a liquid crystal layer sandwiched between said first and second substrates, said second substrate further having thereon a plurality of protrusions, each of said protrusions being positioned at a substantially central portion of a corresponding one of said pixel electrodes, wherein said opposing electrode comprises a plurality of stripe-shaped electrodes formed perpendicularly to said plurality of pixel electrodes, an intersection of a pixel electrode in said plurality of pixel electrodes and a stripe-shaped electrode in said plurality of stripe-shaped electrodes, defining a pixel of said liquid crystal display device.

12. (Previously presented) The device as claimed in claim 11, wherein an electric field formed in said liquid crystal layer between said pixel electrode and a corresponding one of said opposing electrodes is tilted toward a center of said pixel.

13. (Previously presented) The device as claimed in claim 12, wherein said electric field causes molecules of said liquid crystal layer to be symmetrically oriented toward center of said pixel.

14. (Canceled)

15. (Previously presented) The device as claimed in claim 4, wherein said pixel electrodes

Serial No. 10/014,509  
Docket No. 383684/00

4

comprise notches formed on peripheral portions of said pixel electrodes.

16. - 17. (Canceled)

18. (Previously presented) The device as claimed in claim 4, wherein said pixel electrodes comprise concave portions extending radially outward from centers of said pixel electrodes.

19-20. (Canceled)

21. (Previously presented) The device as claimed in claim 4, wherein said rod-shaped spacer is formed in a central portion of an area of said pixel electrode.

22. (Previously presented) The device as claimed in claim 4, wherein said protrusions extend in a direction of said first substrate from substantially symmetrical centers of corresponding ones of said pixel electrodes.

23. (Previously presented) The device as claimed in claim 4, wherein said rod-shaped spacer defines a plurality of domains of said liquid crystal layer for a corresponding one of said pixel electrodes.

24. (Previously presented) A liquid crystal display device, comprising:  
a first substrate on which a plurality of pixel electrodes are formed;  
a second substrate on which an opposing electrode is formed; and  
a liquid crystal layer sandwiched between said first and second substrates, said second substrate further having thereon a plurality of protrusions, each of said protrusions being positioned at a substantially central portion of a corresponding one of said pixel electrodes, wherein said plurality of protrusions comprises a rod-shaped spacer extending between said first and second substrates, wherein said rod-shaped spacer defines a plurality of domains of said liquid crystal layer for a corresponding one of said pixel electrodes, and

Serial No. 10/014,509  
Docket No. 383684/00

5

wherein said plurality of domains comprises a plurality of symmetrical liquid crystal domains.

25. (Previously presented) A liquid crystal display device, comprising:  
a first substrate on which a plurality of pixel electrodes are formed;  
a second substrate on which an opposing electrode is formed; and  
a liquid crystal layer sandwiched between said first and second substrates, said second substrate further having thereon a plurality of protrusions, each of said protrusions being positioned at a substantially central portion of a corresponding one of said pixel electrodes, wherein said plurality of protrusions comprises a rod-shaped spacer extending between said first and second substrates,  
wherein said rod-shaped spacer defines a plurality of domains of said liquid crystal layer for a corresponding one of said pixel electrodes, and  
wherein a liquid crystal material in said liquid crystal layer is alignable differently in one of said plurality of domains than in another one of said plurality of domains.